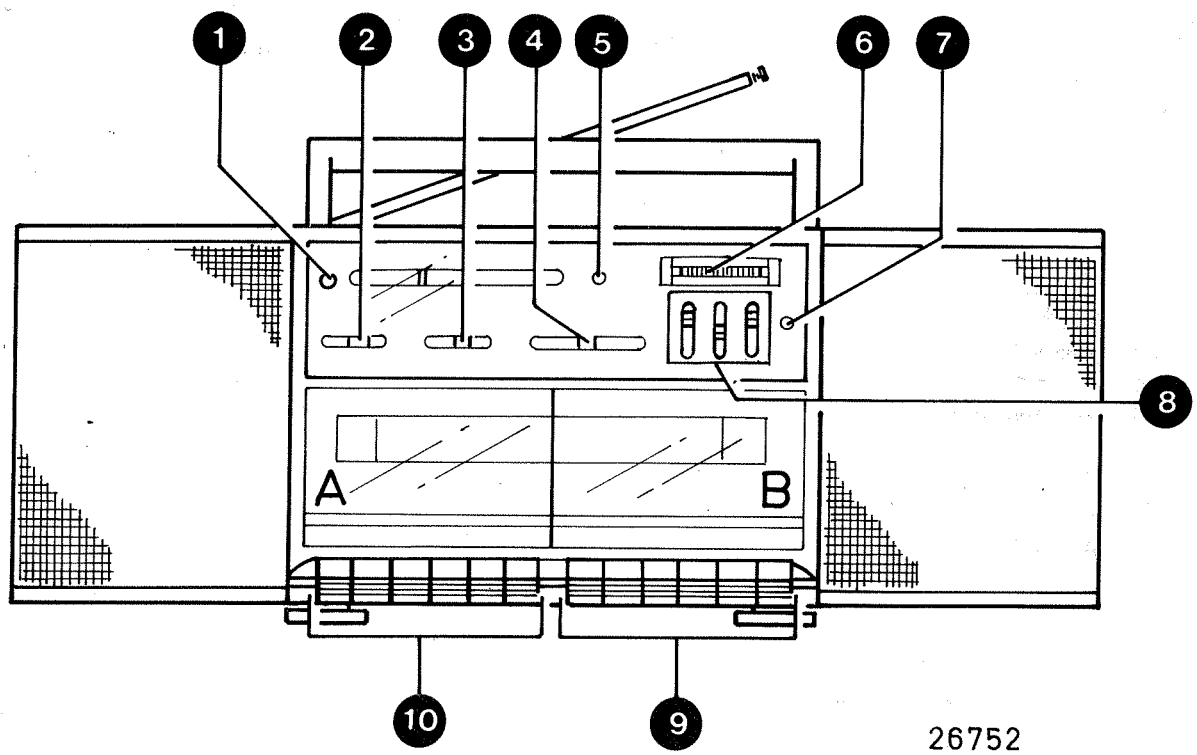
Stereo radio recorder AW7792

Service
Service
Service

00/05

For repair information of the cassette mechanism see Service Manual of Recorders tape deck RX Version RX-4

Service Manual



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Documentation Technique Service Dokumentation Documentazione di Servizio Huolte-Ohje Manual de Servicio Manual de Serviço

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agrées, seuls habilités à réparer votre appareil en panne".

Subject to modification
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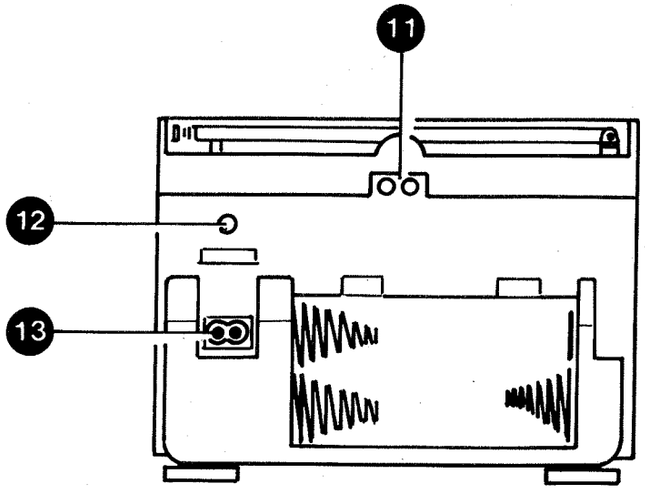


Connections and controls:

1 — 4201

2 Bandswitch 1011

3 Function switch 1102

4 — 3217

5 Stereo indicator 7011

6 — 2105

7 — 1221

8 Graphic equaliser 3551-3553

9 Tape deck B buttons:

— Contionuous play SK-G

— SK-G

— SK-G

— SK-G

10 Tape deck A buttons:

— SK-F/1202

— SK-F

— SK-F

— SK-F

11 — R,L 1211/1212

12 Not applicable

13 — 1231

Specifications:

220V/240V 50Hz

Voltage selection : Set at 220V (-/00)
Set at 240V (-/05)

: 9V (R20 x 6)

~ 2 x 1.4W-1dB } 4Ω
2 x 2.0W-1dB } d=10%

AM IF	468KHz
FM IF	10.7MHz
FM	87.5-108MHz
MW	526.5-1606.5KHz
LW	150-255KHz

Tape speed:	4.76 cm/sec±3% 2 x 4.76 cm/sec (high speed dubbing)
Wow and flutter:	<0.35%
Signal to noise ratio:	>40dB >37dB(Dubbing) >37dB(H.S.Dubbing) >22dB(AM Rec)
Freq response: (within 8dB)	250-6300Hz 250-6300Hz(Dubbing) 250-5000Hz(H.S.Dubbing) 250-4000Hz(AM Rec)
Equalizer control:	100Hz-1KHz-10KHz -6dB to 6dB

CASSETTE DECK

Adjustment	Cassette	Recorder position			Measure on	Read on	Adjust with	Adjust to
		SK...	Deck A	Deck B				
Azimuth	10KHz SBC420*	Tape	Play	—	BU-1	mV-meter	Left hand screw Play head	max. output L=R
		Tape	—	Play	BU-1	mV-meter	Left hand screw R/P head	
Motor speed (Normal)	3150Hz SBC420*	Tape	Play	—	BU-1	Wow and Flutter meter	preset in motor	**a
		Tape	—	Play	BU-1	Wow and Flutter meter	—	**a
Motor speed (High)	3150Hz SBC420*	High speed Dubbing	Record	Play	BU-1	Frequency counter	—	6.0±0.3 KHz

* SBC 420 : 4822 397 30071

**a The maximum permissible speed deviation is 2%. Moreover, the wow and flutter value can be read. This value should not exceed 0.35%.

| | | |

7801

1 -	0.9V	0.6V
2 -	1.6V	1.1V
3 -	0 V	0 V
4 -	0.9V	0.8V
5 -	1.6V	-
6 -	1.5V	-
7 -	0 V	1.6V
8 -	3.7V	3.9V
9 -	1.1V	-
10 -	0.7V	0.2V
11 -	0 V	1.6V
12 -	0 V	1.6V
13 -	1.6V	1.1V
14 -	1.6V	1.1V
15 -	-	1.5V
16 -	1.6V	0.7V
17 -	0.7V	0.2V
18 -	1.6V	0.7V
19 -	1.6V	0.7V
20 -	1.6V	0.7V

7802

1 -	4.5V	4.6V
2 -	1.5V	1.5V
3 -	1.5V	1.5V
4 -	2.3V	2.3V
5 -	2.3V	2.3V
6 -	7.4V	LED off 7.4V
	0.8V	LED on
7 -	0 V	0 V
8 -	0 V	0 V
9 -	1.9V	Mono 1.9V
	0.1V	Stereo
10 -	1.3V	1.3V
11 -	1.3	1.3V
12 -	-	-
13 -	1.3V	1.3V
14 -	1.3V	1.3V
15 -	1.3V	1.3V
16 -	0.4V	0.4V

7803

1 -	0V
2 -	0V
3 -	-
4 -	2.4V
5 -	-
6 -	1.3V
7 -	-
8 -	-
9 -	1.3V
10 -	-
11 -	2.4V
12 -	-
13 -	4.9V
14 -	4.9V

7804

1 -	0V
2 -	-
3 -	-
4 -	2.4V
5 -	-
6 -	1.3V
7 -	-
8 -	-
9 -	1.3V
10 -	-
11 -	2.4V
12 -	-
13 -	4.9V
14 -	4.9V

7805

1 -	-
2 -	4.6V
3 -	8.8V
4 -	0V
5 -	0V
6 -	0.6V
7 -	-
8 -	8.9V
9 -	0 V
10 -	-
11 -	0.6V
12 -	0 V
13 -	0 V
14 -	8.8V
15 -	4.6V
16 -	9.0V

7101

e -	0 V	0 V
b -	-	0.6V
c -	-	-

7102

e -	0 V	0 V
b -	0.6V	Stereo
c -	0.1V	Stereo
	1.9V	Mono
	1.9V	

7104

e -	0 V	0 V
b -	0 V	0.6V
c -	8.5V	-

7105

e -	0.1V	0.2V
b -	-	0.5V
c -	9.0V	9.0V

7106

e -	5.3V
b -	6.0V
c -	9.0V

7201

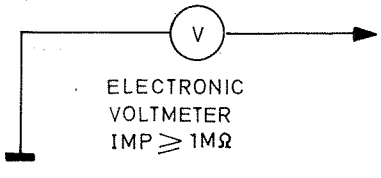
e -	9.0V	8.5V
b -	8.5V	7.8V
c -	0.1V	6.3V

7205

e -	8.6V ▷	8.6V ▷▷
b -	8.0V ▷	- ▷▷
c -	8.6V ▷	6.2V ▷▷

7404 / 7504

e -	0 V
b -	0.6V
c -	1.9V



V General
V FM
V AM
V FM Rec
V AM Rec
V Tape

Measurement done with DC supply

SK..						

AM-IF

MW	468KHz Δf=10KHz via 33nF	C	min.	5104 5105		3 max.

AM-RF

MW * 526.5-1606.5KHz	1635KHz 550KHz 1500KHz	A	min.	CTc 5106 CTd		3 max
LW * 150-255KHz	147KHz 200KHz	A	max.	5108 5107		3 max.

* Mod 1KHz 30%

FM-IF

FM	≈ 10.7MHz Δ f=300KHz (50Hz) via 22nF	B	min.	5103	1 Symm + Linear	

FM-RF

FM α 87.5-108MHz	87.35MHz † Mod 1KHz Δf=22.5KHz 108.2MHz † Mod 1KHz Δf=22.5KHz	B	max.	5102 5101 CTa CTb		3 max.

α via 10nF + 15Ω † ±0.15MHz

Stereo decoder

SK....		Counter
FM STEREO	3152	2 19±0.2KHz

Repeat

"Bei notwendigem Abgleich ist das Gerät auf die gesetzlich vorgeschriebenen Eckfrequenzen abzugleichen".

| | | |

| | | |

Carbon film 0.2 W CR16	70°C	5%	
Carbon film 0.33 W CR25	70°C	5%	
Carbon film 0.5 W CR37	70°C	5%	
Standard film 0.5 W SFR16T	70°C	5%	
Standard film 0.4 W SFR25	70°C	5%	
Metal film 0.6 W MRS25	70°C	5%	
Safety resistor			

Plate ceramic Tuning < 120 pF		2%
Others		—20/+80%
Tubular ceramic		
Polystyrene film / foil		1%
Polyestor Film / foil		10%
Mylar		10%
Electrolytic		

*a	= 2,5 V
b	= 4 V
c	= 6,3 V
d	= 10 V
e	= 16 V
f	= 25 V
g	= 40 V
h	= 63 V
j	= 100 V
l	= 125 V
m	= 150 V
n	= 160 V
q	= 200 V
r	= 250 V
s	= 300 V
t	= 350 V
u	= 400 V
v	= 500 V
w	= 630 V
x	= 1000 V
A	= 1,6 V
B	= 6 V
C	= 12 V
D	= 15 V
E	= 20 V
F	= 35 V
G	= 50 V
H	= 75 V
I	= 80 V

(C) Chip component

26338

(GB) WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD).
Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance.
Keep components and tools also at this potential.

ESD

(NL) WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).
Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.
Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.
Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

(F) ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).
Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.
Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.
Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

(D) WARNUNG

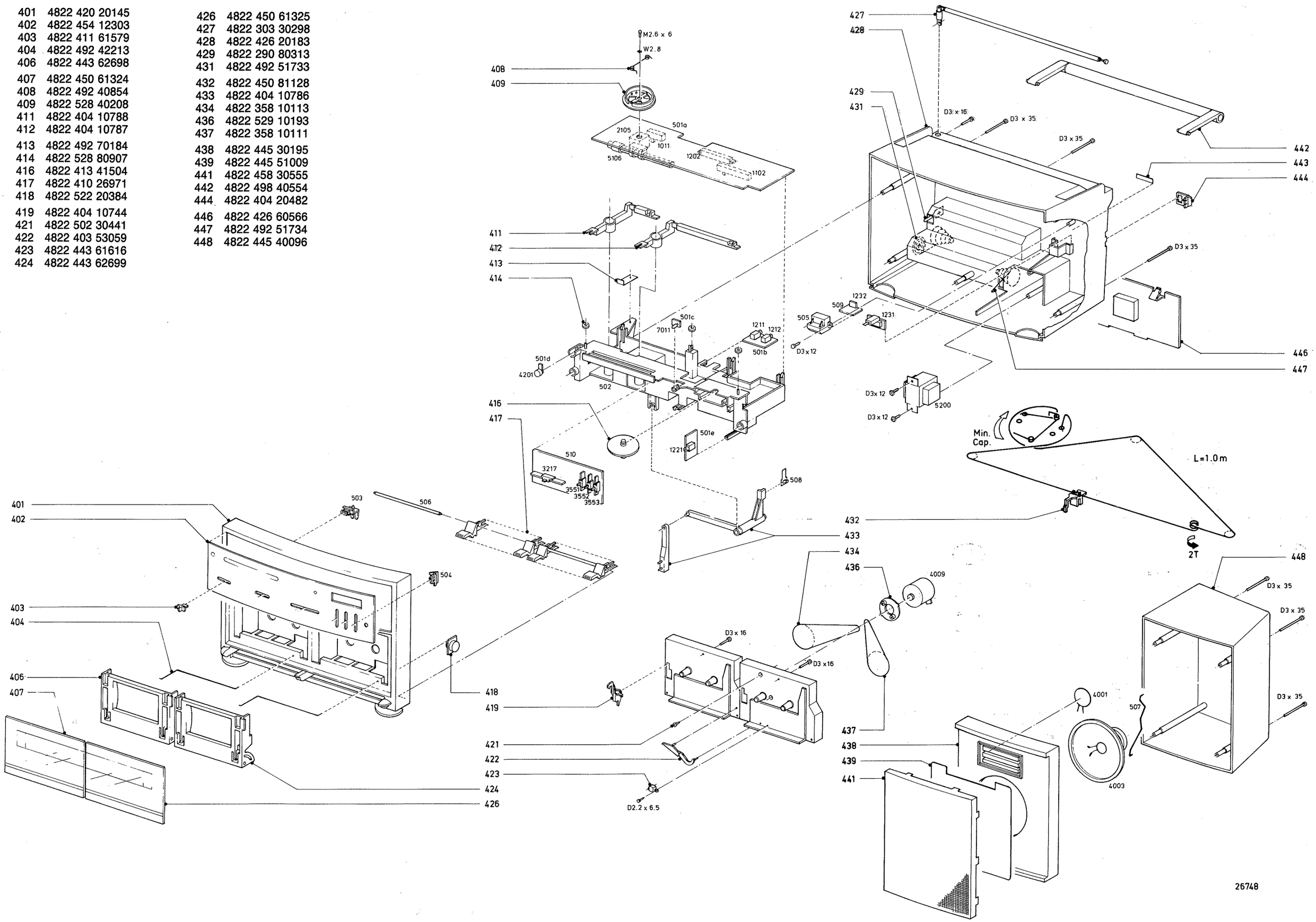
Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).
Unsorgfältige Behandlung im Reparaturfall kan die Lebensdauer drastisch reduzieren.
Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.
Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione.
Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

401	4822 420 20145
402	4822 454 12303
403	4822 411 61579
404	4822 492 42213
406	4822 443 62698
407	4822 450 61324
408	4822 492 40854
409	4822 528 40208
411	4822 404 10788
412	4822 404 10787
413	4822 492 70184
414	4822 528 80907
416	4822 413 41504
417	4822 410 26971
418	4822 522 20384
419	4822 404 10744
421	4822 502 30441
422	4822 403 53059
423	4822 443 61616
424	4822 443 62699

426	4822 450 61325
427	4822 303 30298
428	4822 426 20183
429	4822 290 80313
431	4822 492 51733
432	4822 450 81128
433	4822 404 10786
434	4822 358 10113
436	4822 529 10193
437	4822 358 10111
438	4822 445 30195
439	4822 445 51009
441	4822 458 30555
442	4822 498 40554
444	4822 404 20482
446	4822 426 60566
447	4822 492 51734
448	4822 445 40096



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-Miscellaneous-

1007,1008	R/P head	4822 249 10334
1009	Erase head	4822 249 20072
1101	Bandswitch	4822 277 10957
1102	Function switch	4822 277 21198
1202	Rec switch	4822 277 20594
1211,1212	Socket,D3.5	4822 267 31049
1221	Socket,head	4822 267 30553
1231	Socket,mains⚠	4822 267 20318
4001,4002	Buzzer	4822 240 30444
4003,4004	Speaker 4Ω	4822 240 30506
4009	Motor 9V	4822 361 21041
4201	E-mic	4822 242 30121

2105	Polyvaricon	4822 125 50368
2106	Cer 100V 30P	4822 122 33061
2130	PP A630V 165p	4822 121 50541

IC

	TBC548	4822 130 40938
	TBC548C	4822 130 44196
	TBC548A	4822 130 40948
	TBC558	4822 130 40941
	TBC558B	4822 130 44197
	TBC549C	4822 130 44246
	TEA5591/N3	4822 209 71836
	AN7411	4822 209 71321
	AN7312	4822 209 70997
	TA7769P	4822 209 70372

3152	Preset 10K	4822 100 10266
3217	Potm 50KA x 2	4822 105 11002
3551,3552 3553	Potm 100KB x 2	4822 105 11004

5001	Bead core	4822 526 10016
5102	FM RF coil	4822 156 30947
5103	IFT FM Org	4822 156 30958
5104	IFT AM Or	4822 157 53527
5105	IFT AM VI	4822 157 53526
5106	MW ANT coil	4822 158 60575
5107	LW RF coil	4822 157 53321
5108	MW OSC coil Rd	4822 156 30671
5109	Filter 10.7MHz	4822 242 71869
5200	Transfo mains⚠	4822 146 30754
5301	Ind. 270uH	4822 157 52991
5302	Ind. 1000uH	4822 157 53792

	1N4148	4822 130 30621
	BZX79C6V2	4822 130 34167
	1N4002	5322 130 30684
	LN21RP-H	4822 130 60381

(GB)

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used.

(F)

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

(NL)

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

(D)

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.

(I)

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.